

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Soil Erosion**

**Sheet and Rill Erosion**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Permanent ground cover > 90% and slope < 10%.  
 Assessment level: The water erosion rate is ≤ T.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

The current crop rotation includes at least 2 crops (may include cover crops) in rotation of which at least one is a high residue crop. <see state list of high residue crops>

Yes ☐ No ☐

Row orientation is across the slope or on a contour. (Does not apply to perennial crops included in with annual crops in rotation)

Yes ☐ No ☐

**Ephemeral Gully Erosion**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Ephemeral gullies are not occurring. Assessment level: Conservation practices and managements are in place to prevent or control ephemeral gullies.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Grassed waterways are established and maintained in concentrated flow areas.

Yes ☐ No ☐

All temporary or permanent rills and gullies are stabilized. All areas expected to have high erosion rates are stable.

Yes ☐ No ☐

## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Classic Gully Erosion

#### Planning Criteria

Screening level: Classic gullies are not present. Assessment level: Classic gully management is adequate to stop the progression of head cutting and widening and are offsite impacts are minimized by vegetation and/or structures.

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

All temporary or permanent rills and gullies are stabilized. All areas expected to have high erosion rates are stable.

#### Evaluation Test Met

Yes ☐ No ☐

### Streambank, Shoreline, Water Conveyance Channels

#### Planning Criteria

Screening level: Streams, shoreline or channels are not adjacent to site. Assessment level: For shorelines and water conveyance channels; banks are stable or commensurate with normal geomorphological processes, AND if bank erosion is present, it is beyond the client's control or commensurate with normal geomorphological processes, AND for streambanks, SVAP2 bank condition element score > 5.

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

Excluding all fundamentally unstable, natural geomorphic streambanks/shorelines, all streambanks/shorelines on the operation show few signs of erosion or bank failure. Each is stable and protected with natural materials.

#### Evaluation Test Met

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Soil Quality Degradation**

**Organic Matter Depletion**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Permanent ground cover > 80%. Assessment level: The SCI is > 0.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Cover crops that are not burned, grazed, or harvested are included in the rotation.

Yes ☐ No ☐

A reduced/mulch till or no-till system is implemented. This system leaves crop residue on the soil surface and excludes primary inversion tillage implements (such as moldboard plow).

Yes ☐ No ☐

**Compaction**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Soil compaction is not a problem AND activities do not cause soil compaction problems. Assessment level: Compaction is managed to meet client's production and management objectives.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Soil moisture is tested to reduce soil compaction. Typical methods include moisture-by-feel or moisture meters.

Yes ☐ No ☐

The crop rotation includes cover crops with deep roots that extend through the soil profile to break up compacted layers. <see state lists>

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Excess Water**

**Runoff and Flooding and Ponding**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Ponding or flooding not a problem AND activities do not cause ponding/flooding problems. Assessment level: Excess water is managed to meet client's objectives.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Excessive water runoff, flooding, and water ponding are not concerns; or measures are applied such as grassed waterways, terraces, diversions, filter strips to reduce excessive runoff; or if flooding is a concern crops and field activities are managed within the seasonal flooding periods; or where ponding is a concern land leveling or shallow surface drains prevent ponding of water that limits crop production.

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Insufficient Water**

**Inefficient Use of Irrigation Water**

**Planning Criteria**

**Planning Criteria Met**

Screening level: PLU is not irrigated. Assessment level: The irrigation system components and management result in a Farm Irrigation Rating Index > 60 AND meets applicable State in-stream flow and lake and pond water levels requirements.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

An irrigation water management plan is followed that: -meets the crop's needs, while maximizing irrigation water efficiency, -schedules water application based on soil moisture monitoring and/or evapotranspiration monitoring, -measures and records the amount of water you use to irrigate as it comes onto the farm and goes to each field, AND-the system's distribution uniformity has been evaluated and necessary changes were made.

Yes ☐ No ☐

Crops grown, varieties, and cropping order are carefully chosen. The local climate conditions and a water balance/budget are used in the decision making process.

Yes ☐ No ☐

A residue and tillage management system is implemented on all crops in the rotation which keeps at least 60 percent of the field surface covered after planting to increase plant available moisture.

Yes ☐ No ☐

Cover crops are killed timely to conserve soil moisture for the next crop.

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Inefficient Moisture Management**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Moisture management is not a problem AND activities do not cause inefficient moisture management problems.  
 Assessment level: Runoff and evapotranspiration levels are minimized to meet client's management objectives.

Yes ☐      No ☐

**Evaluation Tests**

**Evaluation Test Met**

Crops grown, varieties, and cropping order are carefully chosen. The local climate conditions and a water balance/budget are used in the decision making process. Crop rotation includes at least 2 crops in rotation.

Yes ☐      No ☐

A residue and tillage management system is implemented on all crops in the rotation which keeps at least 60 percent of the field surface covered after planting to increase plant available moisture.

Yes ☐      No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Water Quality Degradation**

**Pesticides in Surface Water**

**Planning Criteria**

Screening level: Pest control chemicals are not applied. Assessment level: Pesticides are stored, handled, disposed and managed to prevent runoff, spills, leaks and leaching AND conservation practices and managements are in place to minimize surface water impacts.

**Planning Criteria Met**

Yes ☐ No ☐

**Evaluation Tests**

Pesticides are applied using a site-specific mixture of prevention, avoidance, monitoring, and suppression (PAMS) strategies. Environmental risk screening tool are used (such as WIN-PST or similar LGU approved tool). Application rates and timing are compliant with the label and the conservation plan.

**Evaluation Test Met**

Yes ☐ No ☐

**Pesticides in Ground Water**

**Planning Criteria**

Screening level: Pest control chemicals are not applied. Assessment level: Pesticides are stored, handled, disposed and managed to prevent runoff, spills, leaks and leaching AND conservation practices and managements are in place to minimize ground water impacts.

**Planning Criteria Met**

Yes ☐ No ☐

**Evaluation Tests**

Pesticides are applied using a site-specific mixture of prevention, avoidance, monitoring, and suppression (PAMS) strategies. Environmental risk screening tool are used (such as WIN-PST or similar LGU approved tool). Application rates and timing are compliant with the label and the conservation plan.

**Evaluation Test Met**

Yes ☐ No ☐

## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Nutrients in Surface Water

#### Planning Criteria

Screening level: Organic or inorganic nutrients are not applied AND the PLU is not grazed. Assessment level: Nutrient and amendment applications are based on soil or tissue tests and nutrient budgets for realistic yields AND conservation practices and managements are in place to minimize surface water impacts.

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

Cover crops are grown to utilize excess nutrients.

#### Evaluation Test Met

Yes ☐ No ☐

The land adjacent to a stream, river, or other waterbody on the side or sides you control does: - have diverse, natural plant cover typical to that along streams in your area, - extend from the stream bank/shoreline for a distance of 35 feet or (if applicable) the minimum State buffer-width requirement, whichever is greater, AND - have few places where concentrated runoff flows through.

Yes ☐ No ☐

Livestock access to streams is limited to short periods of time and small areas.

Yes ☐ No ☐

If nutrients are applied, a nutrient budget is used to determine all application rates, including: - Realistic yield goals, - Nutrient uptake requirements, and - Available nutrient accounting for each of the following: (a) N, P, K from representative soil tests ( $\leq 3$  yrs), (b) Soil organic matter mineralization, (c) Legumes in rotation, (d) Previous applications of manure and other organic based materials, (e) Planned post-harvest residual soil test levels, (f) Available nutrient analysis for each nutrient source, and (g) Available nutrient uptake efficiencies from planned application rate, source, method, timing and placement. All state specific application setbacks are maintained for all nutrient applications.

Yes ☐ No ☐



## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Nutrients in Ground Water

#### Planning Criteria

Screening level: Organic or inorganic nutrients are not applied AND PLU is not grazed. Assessment level: Nutrient and amendment applications are based on soil or tissue tests and nutrient budgets for realistic yields AND conservation practices and managements are in place to minimize ground water impacts.

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

Cover crops are grown to utilize excess nutrients.

#### Evaluation Test Met

Yes ☐ No ☐

If nutrients are applied, a nutrient budget is used to determine all application rates, including: - Realistic yield goals, - Nutrient uptake requirements, and - Available nutrient accounting for each of the following: (a) N, P, K from representative soil tests ( $\leq 3$  yrs), (b) Soil organic matter mineralization, (c) Legumes in rotation, (d) Previous applications of manure and other organic based materials, (e) Planned post-harvest residual soil test levels, (f) Available nutrient analysis for each nutrient source, and (g) Available nutrient uptake efficiencies from planned application rate, source, method, timing and placement. All state specific application setbacks are maintained for all nutrient applications.

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Surface Water**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Potential sources of pathogens or pharmaceuticals are not applied on the land. Assessment level: Organic materials are applied, stored, and/or handled to mitigate negative impacts to surface water sources.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Filter strips that are at least 30 feet wide are established and maintained.

Yes ☐ No ☐

Livestock access to stream is controlled OR limited to small watering or crossing areas.

Yes ☐ No ☐

Manure and other biosolids are applied using a nutrient budget to determine all application rates, including: - Realistic yield goals, - Nutrient uptake requirements, and - Available nutrient accounting for each of the following: (a) N, P, K from representative soil tests ( $\leq$  3yrs), (b) Soil organic matter mineralization, (c) Legumes in rotation, (d) Avoiding manure applications when soils are frozen, snow covered, or saturated, (e) Planned post-harvest residual soil test levels, (f) Available nutrient analysis for each nutrient source, and (g) Available nutrient uptake efficiencies from planned application rate, source, method, timing and placement. All state specific application setbacks are maintained for all nutrient applications. Minimum setbacks are maintained from drainageways, wells, ditched, streams, rivers, and water bodies.

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Ground Water**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Potential sources of pathogens or pharmaceuticals are not applied on the land. Assessment level: Organic materials are applied, stored, and/or handled to mitigate negative impacts to groundwater sources.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Manure and other biosolids are applied using a nutrient budget to determine all application rates, including:- Realistic yield goals,- Nutrient uptake requirements, and- Available nutrient accounting for each of the following:(a) N, P, K from representative soil tests ( $\leq$  3yrs),(b) Soil organic matter mineralization,(c) Legumes in rotation,(d) Avoiding manure applications when soils are frozen, snow covered, or saturated,(e) Planned post-harvest residual soil test levels,(f) Available nutrient analysis for each nutrient source, and(g) Available nutrient uptake efficiencies from planned application rate, source, method, timing and placement.All state specific application setbacks are maintained for all nutrient applications.Minimum setbacks are maintained from drainageways, wells, ditched, streams, rivers, and water bodies.

Yes ☐ No ☐

## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Excessive Sediment in Surface Water

#### Planning Criteria

Screening level: Permanent ground cover > 90% and slope < 10%  
 AND classic gullies are not present AND streams or shoreline are not  
 on or adjacent to site. Assessment level: Upslope treatment and buffer  
 practices address concentrated flows to water bodies AND the SVAP2  
 - bank condition  $\geq 5$  AND the livestock and vehicle water crossings  
 are stable AND The water erosion rate is  $\leq T$  AND wind erosion rate  
 is  $\leq T$ .

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

The land adjacent to a stream, river, or other waterbody on the side or  
 sides you control does: - have diverse, natural plant cover typical to  
 that along streams in your area, - extend from the stream  
 bank/shoreline for a distance of 35 feet or (if applicable) the minimum  
 State buffer-width requirement, whichever is greater, AND - have few  
 places where concentrated runoff flows through.

#### Evaluation Test Met

Yes ☐ No ☐

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Established filter strips are at least 20 feet wide and maintained.

Yes ☐ No ☐

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All temporary or permanent rills and gullies are stabilized.

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Air Quality Impacts**

**Emissions of Ozone Precursors**

**Planning Criteria**

Screening level: Operations are not present that produce ozone precursor emissions. Ozone precursor producing activities are: Engines (combustion source), Pesticide application, Burning, CAFO/manure management, Fertilization (manure/commercial). Assessment level: Ozone precursor emissions are managed to meet client objectives.

**Planning Criteria Met**

Yes ☐ No ☐

**Evaluation Tests**

Ozone precursor producing activities are minimized by using one or more of the following activities: Reducing combustible engines exhaust via TIER 4 engine, applying IPM principles for pesticide applications, injection or incorporation of manure, nitrogen fertilizer incorporation or use of a nitrogen stabilizer.

**Evaluation Test Met**

Yes ☐ No ☐

**Emission of Greenhouse Gases (GHGs)**

**Planning Criteria**

Screening level: Activities are not present that produce GHGs emissions. GHG producing activities are: Fertilization(manure/commercial), CAFO/manure management, Engines (combustion source), Tillage, AND GHGs are not regulated in this planning area. Assessment level: Greenhouse gas emissions are managed to meet client objectives.

**Planning Criteria Met**

Yes ☐ No ☐

**Evaluation Tests**

If Nitrogen is applied, Nitrogen is applied as close as possible to crop uptake needs at the recommended rates.

**Evaluation Test Met**

Yes ☐ No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Degraded Plant Condition**

**Undesirable Plant Productivity and Health**

**Planning Criteria**

Screening level: Plant production and health is not a client concern.  
 Assessment level: Plants are adapted to the site, meet production goals and do not negatively impact other resources AND plant damage from wind erosion is below Crop Damage Tolerance levels.

**Planning Criteria Met**

Yes ☐      No ☐

**Evaluation Tests**

Plants and crops are adapted to the soil and site conditions and produce average yield levels for the county in typical years.

**Evaluation Test Met**

Yes ☐      No ☐

**Excessive Plant Pest Pressure**

**Planning Criteria**

Screening level: Plant productivity is not limited from pest pressure.  
 Assessment level: Pest damage to plants are below economic or environmental thresholds or client-identified criteria AND plant pests, including noxious and invasive species are managed to meet client objectives.

**Planning Criteria Met**

Yes ☐      No ☐

**Evaluation Tests**

Weeds, insects, and diseases do not limit crop production.

**Evaluation Test Met**

Yes ☐      No ☐

A crop rotation of at least 2 crops (which may include cover crops) that reduces plant pest pressures and breaks pest cycles is used. For example, crop rotation breaks pest cycles and allows for the rotation of chemical modes of action.

Yes ☐      No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Fish and Wildlife - Inadequate Habitat**

**Inadequate Habitat - Food**

**Planning Criteria**

Assessment level: The WHSI rating is  $\geq 0.5$  AND (when surface stream present) the SVAP2 - fish habitat complexity element score is  $\geq 7$  AND the SVAP2 - aquatic invertebrate habitat element score is  $\geq 7$ , OR conservation practices and managements are in place that meet or exceed species or guild-specific habitat model thresholds, OR food is available in quality and extent to support habitat requirements for the species of interest.

**Planning Criteria Met**

Yes ☐ No ☐

**Evaluation Tests**

Designated areas are planted as food and habitat for pollinators/beneficial insects. For example, planted to nectar and pollen producing plants and protected from disruption--chemical, biological, or mechanical.

**Evaluation Test Met**

Yes ☐ No ☐

Unharvested grain crops are intentionally left in the field as wildlife food on an annual basis.

Yes ☐ No ☐

A no-till system is used that provides food for wildlife. The orientation of the residue between harvest and establishment of the new crop supports wildlife food.

Yes ☐ No ☐

The land adjacent to a stream, river, or other waterbody on the side or sides you control does: - have diverse, natural plant cover typical to that along streams in your area, AND - extend from the stream bank/shoreline for a distance of 35 feet or (if applicable) the minimum State buffer-width requirement, whichever is greater.

Yes ☐ No ☐

Plant growth and cover is managed to develop and maintain early successional habitat to help chosen wildlife species. <see State Wildlife Action Plan>

Yes ☐ No ☐

## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Inadequate Habitat - Cover/Shelter

#### Planning Criteria

Assessment level: The WHSI rating is  $\geq 0.5$  AND (when surface stream present) the SVAP2 - barriers to movement element score is  $\geq 7$  AND the SVAP2 - fish habitat complexity element score is  $\geq 7$  AND the SVAP2 - aquatic invertebrate habitat element score is  $\geq 7$ , OR conservation practices and managements are in place that meet or exceed species or guild-specific habitat model thresholds, OR cover is of available quality and extent to support habitat requirements for the species of interest.

#### Planning Criteria Met

Yes ☐ No ☐

#### Evaluation Tests

#### Evaluation Test Met

Established field borders are kept as wildlife cover and as pollinator/beneficial insect habitat.

Yes ☐ No ☐

Designated areas are planted as food and habitat for pollinators/beneficial insects. For example, planted to nectar and pollen producing plants and protected from disruption--chemical, biological, or mechanical.

Yes ☐ No ☐

A crop rotation that provides cover and shelter for wildlife is used. <STATE EXAMPLES--grain crops, forage crops, nectar or pollen producing crops, winter cover crops, contour strip cropping including small grain/hay>

Yes ☐ No ☐

Unharvested grain crops are intentionally left in the field as wildlife food on an annual basis.

Yes ☐ No ☐

Plant growth and cover is managed to develop and maintain habitat to help chosen wildlife species. <see State Wildlife Action Plan>

Yes ☐ No ☐

A no-till system is used that provides cover for wildlife. The orientation of the residue between harvest and establishment of the new crop supports wildlife cover.

Yes ☐ No ☐



## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Inadequate Habitat - Habitat Continuity (Space)

#### Planning Criteria

#### Planning Criteria Met

Assessment level: The WHSI rating is  $\geq 0.5$  AND (when surface stream present) the SVAP2 - barriers to movement element score is  $\geq 7$  AND the SVAP2 - aquatic invertebrate habitat element score is  $\geq 7$ , OR conservation practices and managements are in place that meet or exceed species or guild-specific habitat model thresholds, OR The connectivity of habitat components are adequate to support stable populations of targeted species.

Yes ☐

No ☐

#### Evaluation Tests

#### Evaluation Test Met

The land adjacent to a stream, river, or other waterbody on the side or sides you control does: - have diverse, natural plant cover typical to that along streams in your area, AND - extend from the stream bank/shoreline for a distance of 35 feet or (if applicable) the minimum State buffer-width requirement, whichever is greater.

Yes ☐

No ☐

People, vehicles, equipment, or livestock are only moved across a stream/river at a bridge, culvert, or stabilized ford crossing(s). Travel across the stream/river beyond these crossings is controlled.

Yes ☐

No ☐

Connectivity between food resources and cover and shelter is provided for the chosen wildlife species. <see State Wildlife Action Plan>

Yes ☐

No ☐

Designated areas are planted as habitat for pollinators/beneficial insects. Non-cropped area protected from disruption during nesting and foraging periods--chemical, biological, or mechanical.

Yes ☐

No ☐

A no-till system is used that provides food and cover for wildlife. The orientation of the residue between harvest and establishment of the new crop supports wildlife food and cover.

Yes ☐

No ☐

Established field borders are kept as wildlife cover and as pollinator/beneficial insect habitat.

Yes ☐

No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Livestock Production Limitation**

**Inadequate Feed and Forage**

**Planning Criteria**

**Planning Criteria Met**

Assessment level: When the land use has a "grazed" modifier, livestock forage, roughage and supplemental nutritional requirements addressed.

Yes ☐

No ☐

**Evaluation Tests**

**Evaluation Test Met**

The current crop rotation provides ample feed and/or forages to support the livestock on the farm. Soil erosion and compaction are also lessened.

Yes ☐

No ☐

**CSP-2017-1 DE - cropland Crop Annual/Mixed**

**Inefficient Energy Use**

**Equipment and Facilities**

**Planning Criteria**

**Planning Criteria Met**

Screening level: Client is not interested in improving equipment and facilities energy efficiency. Assessment level: Major components of a USDA approved energy audit have been implemented that address equipment and facilities to meet client objectives OR On-farm renewable energy and/or energy conserving practices have been implemented to meet client objectives.

Yes ☐ No ☐

**Evaluation Tests**

**Evaluation Test Met**

Recommendations/components of an energy audit have been applied. The audit addressed equipment and facilities on the farm. For example, energy loss from lighting, drying, refrigeration, heating, or building insulation have been improved.

Yes ☐ No ☐

Renewable energy systems are applied. For example, solar, wind, geothermal, or hydro.

Yes ☐ No ☐

## CSP-2017-1 DE - cropland Crop Annual/Mixed

### Farming/Ranching Practices and Field Operations

#### Planning Criteria

#### Planning Criteria Met

Screening level: Client is not interested in improving equipment and facilities energy efficiency. Assessment level: Major components of a USDA approved energy audit have been implemented that address equipment and facilities to meet client objectives OR On-farm renewable energy and/or energy conserving practices have been implemented to meet client objectives.

Yes ☐

No ☐

#### Evaluation Tests

#### Evaluation Test Met

A residue and tillage management system is implemented on all crops in the rotation. The system leaves crop residue on the soil surface and excludes primary inversion tillage implements (such as moldboard plow). <Refer to state specific crop rotations showing systems which use at least 25% less energy than a conventional tillage system.>

Yes ☐

No ☐

Recommendations/components of an energy audit have been applied. The audit addressed field operations on the farm. For example, energy loss from driven equipment, irrigation, or pumping have been improved.

Yes ☐

No ☐

Renewable energy systems are applied. For example, solar, wind, geothermal, or hydro.

Yes ☐

No ☐

An irrigation water management plan is followed that: -meets the crop's needs, while maximizing irrigation water efficiency, -schedules water application based on soil moisture monitoring and/or evapotranspiration monitoring, -measures and records the amount of water you use to irrigate as it comes onto the farm and goes to each field, AND -the system's distribution uniformity has been evaluated and necessary changes were made.

Yes ☐

No ☐